

Notice of Allowability

Application No.

10/772,143

Examiner

DANIEL G MARIAM

Applicant(s)

LOVE, PATRICK B.

Art Unit

2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to a telephone interview date October 29, 2004.
2. ☒ The allowed claim(s) is/are 1 and 10-13 (will be renumbered as 1-5).
3. ☒ The drawings filed on 04 February 2004 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 10292004.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DANIEL MIRIAM
PRIMARY EXAMINER

EXAMINER'S AMENDMENT AND ALLOWANCE

Examiner's Amendment

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Joshua King (Reg. no. 35,570) on October 29, 2004.

The application has been amended as follows:

Amend the specification as follows:

In page 3, 1st paragraph, line 3, before "plotting" insert "by" - -

In page 2 of the amended specification, submitted on July 13, 2004, under the heading CROSS-REFERENCE TO RELATED APPLICATIONS, line 2 after 2002 insert "now abandoned" - - and in line 3 after 1999 insert "which is now U.S. Patent No. 6,445,820 issued September 3, 2002 - -

Amend claim 1 as follows:

At line 4, delete "of" and replace it with "by" - -

Allowance

2. Claims 1 and 10-13 are allowed. The claims will be renumbered as 1-5.
3. The following is an examiner's statement of reasons for allowance: the instant invention discloses a method for analyzing a DNA data, and displaying the analyzed DNA data. Upon acquisition of a DNA source data, the instant invention creates a digital bit-map of the source

Art Unit: 2621

data by plotting image intensity data against a two-dimensional coordinate system from an initial view point. After generating the bit-mapped data, the instant invention then creates an image model, where the image model comprises model data representing the image intensity data as virtual points on a three-dimensional coordinate system incorporating the two-dimensional coordinate system of the digital bit-map. Using the image model, the instant invention generates a DNA analysis image, which represents the model data from an analysis view point with respect to the two-dimensional coordinate system, the analysis viewpoint differs from the initial viewpoint. These features in combination with all the other elements of the claims are not disclosed or fairly suggested by any of the prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patent Numbers: 5235522, 5502773, 5548661, 5865975, 6035258, and 6055325; and a publication to: Samarabandu, et al. "Application of three-dimensional image analysis to the mammalian cell nucleus", Yasuda, et al. "Application of DNA micromanipulation to gene mapping and localized restriction enzyme digestion"; and Bhandarkar, et al. "Image analysis for high throughput genomics".

Art Unit: 2621

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL G MARIAM whose telephone number is 703-305-4010. The examiner can normally be reached on M-F (7:00-4:30) FIRST FRIDAY OFF.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, LEO BOUDREAU can be reached on 703-305-4607. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


DANIEL MIRIAM
PRIMARY EXAMINER

October 29, 2004